# Workshop on Mountaintop Mining
# Effects on Ground Water

**Charleston, West Virginia**
**May 9, 2000**

## Background Information

### About the Mountaintop Mining/Valley Fill Environmental Impact Statement

The U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (Corps), U.S. Office of Surface Mining (OSM), and U.S. Fish and Wildlife Service (FWS), in cooperation with the State of West Virginia, are preparing an Environmental Impact Statement (EIS) on a proposal to consider developing agency policies, guidance, and coordinated agency decision making processes to minimize, to the maximum extent practicable, the adverse environmental effects to waters of the United States and to fish and wildlife resources from mountaintop mining operations, and to environmental resources that could be affected by the size and location of fill material in valley fill sites. The draft EIS will be released for public comment during the summer of 2000. The final EIS is slated for completion by January 2001.

Early in 1998, the four Federal agencies now involved in the EIS formed a work group and agreed on a series of priority areas where more information and analysis would assist them in regulating the effects of valley fills associated with coal mining operations. Study plans were adopted and funded for undertaking valley fill inventories in West Virginia, Kentucky, and Virginia; for assessing the stability of valley fills; and for assessing the potential for downstream flooding from these mining operations. The agencies also placed priority on studying the impacts of valley fills on aquatic habitat; on surveying and evaluating mitigation practices being employed in West Virginia and neighboring Appalachian Coalfield States; and on evaluating how to better coordinate the Federal regulatory programs. These studies were underway or in the planning stages when the Bragg v. Roberston settlement agreement was reached in December 1998.

With the decision to prepare an EIS, the agencies brought the coordination of these technical studies under the scope of the EIS, and broadened state participation. The expanded network of agencies has now examined the studies initiated in 1998 and has modified those study plans to make them more useful for the EIS. Additional work plans responding specifically to the EIS mandate have also been drafted.

Team leaders have been selected among the participating agencies for each of the technical study areas, which are listed below. The team leaders worked with a team representative of the expertise of each agency to develop a work plan. The work plans reflect what the agencies believe should be studied, and are subject to revision as work progresses and new insights are gained.

EIS Technical Study Areas:
?? Future Mining
?? Fill Stability
?? Mining and Reclamation Technology
?? Flooding Potential
?? Fill Hydrology
?? Streams
?? Fisheries
?? Wetlands
?? Aquatic Ecosystem Enhancement
?? Terrestrial Ecology
?? Soil Quality and Forest Productivity
?? Socioeconomic
?? Mine Dust and Blasting Fumes
?? Landscape Ecology/Cumulative Effects

**Background on Workshop on Mountaintop Mining Effects on Ground Water**

Initially, the priority EIS Technical Study Areas all focused on impacts of mountaintop mining and valley fills on surface water and watershed resources and the EIS Steering Committee placed the issue of mountaintop mining/valley fill effects on ground-water resources outside the scope of this EIS. However, the EIS Steering Committee subsequently concluded that the National Environmental Protection Act requires that the issue of impacts on ground water be addressed in some way in order to properly complete the EIS. Therefore, the EIS Steering Committee directed the development of a forum to consider the state-of-knowledge on the potential impacts of mountaintop mining with valley fills on ground-water resources and determine if these potential impacts were of sufficient concern to warrant additional study within the scope of the EIS.

The workshop was managed for the EIS Steering Committee by Mr. Mike Robinson of the Office of Surface Mining. Technical program chair was Mr. Jim Eychaner of the U.S. Geological Survey (USGS) from Charleston, West Virginia. USGS provides objective scientific information to Department of Interior regulatory agencies. Workshop logistics, facilitation, and documentation were overseen by Mr. Carey Butler, an employee of WPI, which is a not-for-profit environmental consulting firm affiliated with Virginia Tech University.

The forum leaders gathered a planning committee that included representatives of the Office of Surface Mining, Region III of the Environmental Protection Agency, the USGS, the West Virginia Division of Environmental Protection, the West Virginia Mining and Reclamation Association, and the West Virginia Coal Association. The committee developed the concept for a one-day workshop with the following objectives:

**Workshop Objectives**

- Identify potential impacts of mountaintop mining on ground-water quality and quantity
- Review existing knowledge and ongoing research that applies to mountaintop mining effects on ground water. Identify knowledge gaps
- Review and assess the public comments concerning mountaintop mining impacts on ground water received during the EIS Scoping Process
- Identify potential technical and policy actions in light of workshop findings for further consideration during the EIS process

The committee invited a group of individuals knowledgeable on the subject of surface mining and ground water to debate the current science and develop recommendations on the issue for the EIS Steering Committee. Additionally, the workshop would consider the twelve public comments received during the EIS scoping process. The workshop was held on May 9, 2000 in the meeting room of the West Virginia Division of Environmental Protection in Nitro, West Virginia.

The workshop agenda, meeting participants, and the public comments received that concerned ground-water issues are included as attachments to this background paper.

**Attachments:**

Workshop Agenda
Meeting Participants
Public Comments